Project Design Phase-II

Solution Requirements (Functional & Non-functional)

Date	07 October 2022
Team ID	PNT2022TMID38800
Project Name	IoT Based Safety Gadget for Child Safety Monitoring & Notification
Maximum Marks	4 Marks

Functional Requirements:

Following are the functional requirements of the proposed solution.

No.	Functional Requirements	Description
FR-1	User Interface	It should be the connector between the various systems or between other part or unit of the system.
FR-2	Notification System	Parents want to be notified when their child is too far away from them.
FR-3	Secure personal information/Privacy	Encryption of data, any personal data should be deleted as soon as the child is found by the parents; alternatively, interviewees suggested data may be stored for up to 24hrs.
FR-4	Local Ranging/Positioning	GPS is a common and available technology; however, it is unreliable and should not be expected to work for indoor applications.
FR-5	Voice Navigation	Interviewees prefer to be guided by either voice or map navigation. Generally, a map was preferred however two users preferred a car-like voice navigation.

FR-6	Variable Sensitivity	The device should be attractive to the child (colourful design). Alternatively, the device should be embedded in clothing or somehow locked.
FR-7	Early Alarm	The alarm sensitivity should be adjusted by the parent; this is preferred to a fixed alarm sensitivity setting.

Non-functional Requirements:

Following are the non-functional requirements of the proposed solution.

FR No.	Non-Functional Requirement	Description
NFR-1	Usability	How easy is it for a customer to use the system?
NFR-2	Security	How well are the system and its data protected against attacks?
NFR-3	Reliability	How often does the system experience critical failure? e.g.: the system must perform without failure in 95 percent of use case.
NFR-4	Performance	How fast does the system return results?
NFR-5	Availability	How is the user availability time compared to downtime?
NFR-6	Scalability	How much will this performance change with higher workloads?